

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-117013-2

Client Project/Site: Gold King Mine - Region 8

For:

Weston Solutions, Inc.

1435 Garrison Street

Suite 100

Lakewood, Colorado 80215

Attn: Moira Pryhoda



Authorized for release by:

10/14/2015 12:01:18 PM

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

# Method Summary

Client: Weston Solutions, Inc.  
Project/Site: Gold King Mine - Region 8

TestAmerica Job ID: 680-117013-2

Method	Method Description	Protocol	Laboratory
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	TAL SAC

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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# Definitions/Glossary

Client: Weston Solutions, Inc.  
Project/Site: Gold King Mine - Region 8

TestAmerica Job ID: 680-117013-2

## Qualifiers

### Dioxin

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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# Sample Summary

Client: Weston Solutions, Inc.  
Project/Site: Gold King Mine - Region 8

TestAmerica Job ID: 680-117013-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-117013-1	CC06_092115_1300	Solid	09/21/15 13:00	09/23/15 00:00

## Case Narrative

Client: Weston Solutions, Inc.  
Project/Site: Gold King Mine - Region 8

TestAmerica Job ID: 680-117013-2

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**Job ID: 680-117013-2**

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**Laboratory: TestAmerica Savannah**

**Narrative**

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### CASE NARRATIVE

**Client: Weston Solutions, Inc.**

**Project: Gold King Mine - Region 8**

**Report Number: 680-117013-2**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

#### RECEIPT

The samples were received on 09/23/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.6 C.

#### DIOXINS AND FURANS

Sample CC06\_092115\_1300 (680-117013-1) was analyzed for dioxins and furans in accordance with EPA Method 8290A. The samples were prepared on 09/25/2015 and analyzed on 09/29/2015.

Several analytes were detected in method blank MB 320-87253/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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# Client Sample Results

Client: Weston Solutions, Inc.  
Project/Site: Gold King Mine - Region 8

TestAmerica Job ID: 680-117013-2

Client Sample ID: CC06\_092115\_1300

Lab Sample ID: 680-117013-1

Date Collected: 09/21/15 13:00

Matrix: Solid

Date Received: 09/23/15 00:00

Percent Solids: 17.6

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.44	J q	5.6	0.24	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
2,3,7,8-TCDF	0.21	U	5.6	0.21	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
1,2,3,7,8-PeCDD	0.36	U	28	0.36	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
1,2,3,7,8-PeCDF	0.90	J q	28	0.24	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
2,3,4,7,8-PeCDF	0.87	J q	28	0.25	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
1,2,3,4,7,8-HxCDD	1.2	J q	28	0.21	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
1,2,3,6,7,8-HxCDD	1.7	J	28	0.20	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
1,2,3,7,8,9-HxCDD	1.9	J	28	0.18	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
1,2,3,4,7,8-HxCDF	1.5	J q	28	0.30	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
1,2,3,6,7,8-HxCDF	1.9	J	28	0.27	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
1,2,3,7,8,9-HxCDF	2.5	J	28	0.31	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
2,3,4,6,7,8-HxCDF	2.3	J B	28	0.29	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
1,2,3,4,6,7,8-HpCDD	2.7	J B	28	0.27	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
1,2,3,4,6,7,8-HpCDF	2.2	J	28	0.57	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
1,2,3,4,7,8,9-HpCDF	2.7	J q	28	0.70	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
OCDD	6.6	J B	56	0.29	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
OCDF	8.9	J B	56	0.55	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
Total TCDD	0.44	J q	5.6	0.24	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
Total TCDF	0.21	U	5.6	0.21	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
Total PeCDD	0.36	U	28	0.36	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
Total PeCDF	1.8	J q	28	0.25	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
Total HxCDD	4.7	J q	28	0.20	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
Total HxCDF	8.2	J q B	28	0.29	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
Total HpCDD	3.2	J B	28	0.27	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
Total HpCDF	4.9	J q	28	0.64	pg/g	☼	09/25/15 13:00	09/29/15 23:16	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	64		40 - 135				09/25/15 13:00	09/29/15 23:16	1
13C-2,3,7,8-TCDF	63		40 - 135				09/25/15 13:00	09/29/15 23:16	1
13C-1,2,3,7,8-PeCDD	61		40 - 135				09/25/15 13:00	09/29/15 23:16	1
13C-1,2,3,7,8-PeCDF	62		40 - 135				09/25/15 13:00	09/29/15 23:16	1
13C-1,2,3,6,7,8-HxCDD	75		40 - 135				09/25/15 13:00	09/29/15 23:16	1
13C-1,2,3,4,7,8-HxCDF	64		40 - 135				09/25/15 13:00	09/29/15 23:16	1
13C-1,2,3,4,6,7,8-HpCDD	73		40 - 135				09/25/15 13:00	09/29/15 23:16	1
13C-1,2,3,4,6,7,8-HpCDF	74		40 - 135				09/25/15 13:00	09/29/15 23:16	1
13C-OCDD	74		40 - 135				09/25/15 13:00	09/29/15 23:16	1

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# Isotope Dilution Summary

Client: Weston Solutions, Inc.  
Project/Site: Gold King Mine - Region 8

TestAmerica Job ID: 680-117013-2

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCDD (40-135)	TCDF (40-135)	PeCDD (40-135)	PeCDF1 (40-135)	HxCDD2 (40-135)	HxCDF1 (40-135)	HpCDD (40-135)	HpCDF1 (40-135)
680-117013-1	CC06_092115_1300	64	63	61	62	75	64	73	74
LCS 320-87253/2-A	Lab Control Sample	58	59	59	60	66	60	68	70
LCSD 320-87253/3-A	Lab Control Sample Dup	63	62	59	60	65	57	68	67
MB 320-87253/1-A	Method Blank	65	64	62	63	74	65	74	74

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OCDD (40-135)
680-117013-1	CC06_092115_1300	74
LCS 320-87253/2-A	Lab Control Sample	71
LCSD 320-87253/3-A	Lab Control Sample Dup	70
MB 320-87253/1-A	Method Blank	74

### Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD  
TCDF = 13C-2,3,7,8-TCDF  
PeCDD = 13C-1,2,3,7,8-PeCDD  
PeCDF1 = 13C-1,2,3,7,8-PeCDF  
HxCDD2 = 13C-1,2,3,6,7,8-HxCDD  
HxCDF1 = 13C-1,2,3,4,7,8-HxCDF  
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD  
HpCDF1 = 13C-1,2,3,4,6,7,8-HpCDF  
OCDD = 13C-OCDD

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# QC Sample Results

Client: Weston Solutions, Inc.  
Project/Site: Gold King Mine - Region 8

TestAmerica Job ID: 680-117013-2

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-87253/1-A  
Matrix: Solid  
Analysis Batch: 87645

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 87253

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.057	U	1.0	0.057	pg/g		09/25/15 13:00	09/29/15 12:53	1
2,3,7,8-TCDF	0.039	U	1.0	0.039	pg/g		09/25/15 13:00	09/29/15 12:53	1
1,2,3,7,8-PeCDD	0.073	U	5.0	0.073	pg/g		09/25/15 13:00	09/29/15 12:53	1
1,2,3,7,8-PeCDF	0.053	U	5.0	0.053	pg/g		09/25/15 13:00	09/29/15 12:53	1
2,3,4,7,8-PeCDF	0.055	U	5.0	0.055	pg/g		09/25/15 13:00	09/29/15 12:53	1
1,2,3,4,7,8-HxCDD	0.049	U	5.0	0.049	pg/g		09/25/15 13:00	09/29/15 12:53	1
1,2,3,6,7,8-HxCDD	0.048	U	5.0	0.048	pg/g		09/25/15 13:00	09/29/15 12:53	1
1,2,3,7,8,9-HxCDD	0.042	U	5.0	0.042	pg/g		09/25/15 13:00	09/29/15 12:53	1
1,2,3,4,7,8-HxCDF	0.076	U	5.0	0.076	pg/g		09/25/15 13:00	09/29/15 12:53	1
1,2,3,6,7,8-HxCDF	0.069	U	5.0	0.069	pg/g		09/25/15 13:00	09/29/15 12:53	1
1,2,3,7,8,9-HxCDF	0.074	U	5.0	0.074	pg/g		09/25/15 13:00	09/29/15 12:53	1
2,3,4,6,7,8-HxCDF	0.120	J	5.0	0.075	pg/g		09/25/15 13:00	09/29/15 12:53	1
1,2,3,4,6,7,8-HpCDD	0.144	J	5.0	0.060	pg/g		09/25/15 13:00	09/29/15 12:53	1
1,2,3,4,6,7,8-HpCDF	0.43	U	5.0	0.43	pg/g		09/25/15 13:00	09/29/15 12:53	1
1,2,3,4,7,8,9-HpCDF	0.54	U	5.0	0.54	pg/g		09/25/15 13:00	09/29/15 12:53	1
OCDD	0.630	J	10	0.056	pg/g		09/25/15 13:00	09/29/15 12:53	1
OCDF	0.962	J	10	0.10	pg/g		09/25/15 13:00	09/29/15 12:53	1
Total TCDD	0.057	U	1.0	0.057	pg/g		09/25/15 13:00	09/29/15 12:53	1
Total TCDF	0.039	U	1.0	0.039	pg/g		09/25/15 13:00	09/29/15 12:53	1
Total PeCDD	0.073	U	5.0	0.073	pg/g		09/25/15 13:00	09/29/15 12:53	1
Total PeCDF	0.055	U	5.0	0.055	pg/g		09/25/15 13:00	09/29/15 12:53	1
Total HxCDD	0.049	U	5.0	0.049	pg/g		09/25/15 13:00	09/29/15 12:53	1
Total HxCDF	0.120	J	5.0	0.075	pg/g		09/25/15 13:00	09/29/15 12:53	1
Total HpCDD	0.144	J	5.0	0.060	pg/g		09/25/15 13:00	09/29/15 12:53	1
Total HpCDF	0.54	U	5.0	0.54	pg/g		09/25/15 13:00	09/29/15 12:53	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	65		40 - 135	09/25/15 13:00	09/29/15 12:53	1
13C-2,3,7,8-TCDF	64		40 - 135	09/25/15 13:00	09/29/15 12:53	1
13C-1,2,3,7,8-PeCDD	62		40 - 135	09/25/15 13:00	09/29/15 12:53	1
13C-1,2,3,7,8-PeCDF	63		40 - 135	09/25/15 13:00	09/29/15 12:53	1
13C-1,2,3,6,7,8-HxCDD	74		40 - 135	09/25/15 13:00	09/29/15 12:53	1
13C-1,2,3,4,7,8-HxCDF	65		40 - 135	09/25/15 13:00	09/29/15 12:53	1
13C-1,2,3,4,6,7,8-HpCDD	74		40 - 135	09/25/15 13:00	09/29/15 12:53	1
13C-1,2,3,4,6,7,8-HpCDF	74		40 - 135	09/25/15 13:00	09/29/15 12:53	1
13C-OCDD	74		40 - 135	09/25/15 13:00	09/29/15 12:53	1

Lab Sample ID: LCS 320-87253/2-A  
Matrix: Solid  
Analysis Batch: 87645

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 87253

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	20.0	20.0		pg/g		100	77 - 130
2,3,7,8-TCDF	20.0	20.1		pg/g		100	79 - 137
1,2,3,7,8-PeCDD	100	104		pg/g		104	79 - 134
1,2,3,7,8-PeCDF	100	111		pg/g		111	81 - 134
2,3,4,7,8-PeCDF	100	109		pg/g		109	76 - 132
1,2,3,4,7,8-HxCDD	100	91.9		pg/g		92	65 - 144

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# QC Sample Results

Client: Weston Solutions, Inc.  
Project/Site: Gold King Mine - Region 8

TestAmerica Job ID: 680-117013-2

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-87253/2-A

Matrix: Solid

Analysis Batch: 87645

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 87253

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3,6,7,8-HxCDD	100	110		pg/g		110	73 - 147
1,2,3,7,8,9-HxCDD	100	100		pg/g		100	80 - 143
1,2,3,4,7,8-HxCDF	100	107		pg/g		107	72 - 140
1,2,3,6,7,8-HxCDF	100	120		pg/g		120	63 - 152
1,2,3,7,8,9-HxCDF	100	109		pg/g		109	72 - 152
2,3,4,6,7,8-HxCDF	100	114		pg/g		114	72 - 151
1,2,3,4,6,7,8-HpCDD	100	105		pg/g		105	86 - 134
1,2,3,4,6,7,8-HpCDF	100	104		pg/g		104	81 - 137
1,2,3,4,7,8,9-HpCDF	100	101		pg/g		101	79 - 139
OCDD	200	206		pg/g		103	80 - 137
OCDF	200	216		pg/g		108	75 - 141

LCS LCS		Qualifier	Limits
Isotope Dilution	%Recovery		
13C-2,3,7,8-TCDD	58		40 - 135
13C-2,3,7,8-TCDF	59		40 - 135
13C-1,2,3,7,8-PeCDD	59		40 - 135
13C-1,2,3,7,8-PeCDF	60		40 - 135
13C-1,2,3,6,7,8-HxCDD	66		40 - 135
13C-1,2,3,4,7,8-HxCDF	60		40 - 135
13C-1,2,3,4,6,7,8-HpCDD	68		40 - 135
13C-1,2,3,4,6,7,8-HpCDF	70		40 - 135
13C-OCDD	71		40 - 135

Lab Sample ID: LCSD 320-87253/3-A

Matrix: Solid

Analysis Batch: 87645

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 87253

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,7,8-TCDD	20.0	20.0		pg/g		100	77 - 130	0	20
2,3,7,8-TCDF	20.0	20.0		pg/g		100	79 - 137	0	20
1,2,3,7,8-PeCDD	100	105		pg/g		105	79 - 134	1	20
1,2,3,7,8-PeCDF	100	110		pg/g		110	81 - 134	1	20
2,3,4,7,8-PeCDF	100	102		pg/g		102	76 - 132	6	20
1,2,3,4,7,8-HxCDD	100	85.4		pg/g		85	65 - 144	7	20
1,2,3,6,7,8-HxCDD	100	111		pg/g		111	73 - 147	0	20
1,2,3,7,8,9-HxCDD	100	105		pg/g		105	80 - 143	5	20
1,2,3,4,7,8-HxCDF	100	107		pg/g		107	72 - 140	0	20
1,2,3,6,7,8-HxCDF	100	122		pg/g		122	63 - 152	2	20
1,2,3,7,8,9-HxCDF	100	118		pg/g		118	72 - 152	8	20
2,3,4,6,7,8-HxCDF	100	122		pg/g		122	72 - 151	7	20
1,2,3,4,6,7,8-HpCDD	100	106		pg/g		106	86 - 134	1	20
1,2,3,4,6,7,8-HpCDF	100	105		pg/g		105	81 - 137	1	20
1,2,3,4,7,8,9-HpCDF	100	105		pg/g		105	79 - 139	4	20
OCDD	200	210		pg/g		105	80 - 137	2	20
OCDF	200	219		pg/g		109	75 - 141	2	20

LCSD LCSD		Qualifier	Limits
Isotope Dilution	%Recovery		
13C-2,3,7,8-TCDD	63		40 - 135

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# QC Sample Results

Client: Weston Solutions, Inc.  
Project/Site: Gold King Mine - Region 8

TestAmerica Job ID: 680-117013-2

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-87253/3-A

Matrix: Solid

Analysis Batch: 87645

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 87253

<i>Isotope Dilution</i>	<i>LCSD LCSD</i>		<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
13C-2,3,7,8-TCDF	62		40 - 135
13C-1,2,3,7,8-PeCDD	59		40 - 135
13C-1,2,3,7,8-PeCDF	60		40 - 135
13C-1,2,3,6,7,8-HxCDD	65		40 - 135
13C-1,2,3,4,7,8-HxCDF	57		40 - 135
13C-1,2,3,4,6,7,8-HpCDD	68		40 - 135
13C-1,2,3,4,6,7,8-HpCDF	67		40 - 135
13C-OCDD	70		40 - 135

TestAmerica Savannah

## QC Association Summary

Client: Weston Solutions, Inc.  
Project/Site: Gold King Mine - Region 8

TestAmerica Job ID: 680-117013-2

### Specialty Organics

#### Prep Batch: 87253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-117013-1	CC06_092115_1300	Total/NA	Solid	8290	
LCS 320-87253/2-A	Lab Control Sample	Total/NA	Solid	8290	
LCSD 320-87253/3-A	Lab Control Sample Dup	Total/NA	Solid	8290	
MB 320-87253/1-A	Method Blank	Total/NA	Solid	8290	

#### Analysis Batch: 87645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 320-87253/2-A	Lab Control Sample	Total/NA	Solid	8290A	87253
LCSD 320-87253/3-A	Lab Control Sample Dup	Total/NA	Solid	8290A	87253
MB 320-87253/1-A	Method Blank	Total/NA	Solid	8290A	87253

#### Analysis Batch: 87651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-117013-1	CC06_092115_1300	Total/NA	Solid	8290A	87253

TestAmerica Savannah

# Lab Chronicle

Client: Weston Solutions, Inc.  
Project/Site: Gold King Mine - Region 8

TestAmerica Job ID: 680-117013-2

**Client Sample ID: CC06\_092115\_1300**

**Lab Sample ID: 680-117013-1**

**Date Collected: 09/21/15 13:00**

**Matrix: Solid**

**Date Received: 09/23/15 00:00**

**Percent Solids: 17.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			10.10 g	20 uL	87253	09/25/15 13:00	GDB	TAL SAC
Total/NA	Analysis	8290A		1	10.10 g	20 uL	87651	09/29/15 23:16	ALM	TAL SAC
Instrument ID: 10D5										

## Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TestAmerica Savannah

# Chain of Custody Record

TAL-4124-280 (0508)

Client WESTON SOLUTIONS  
 Address 1435 GARRISON ST STE 100  
 City LAKEWOOD State CO Zip Code 80215  
 Project Name and Location (State) GOLD KING MINE, CO  
 Contract/Purchase Order/Quote No. #123

Sampler ID EP

Temperature on Receipt \_\_\_\_\_

Drinking Water? Yes ☐ No ☒

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA -  
 ARVADA  
 4955 YARROW ST  
 ARVADA, CO 80002

Project Manager MOIRA PRYNODA

Telephone Number (Area Code)/Fax Number \_\_\_\_\_

Site Contact \_\_\_\_\_

Lab Contact \_\_\_\_\_

Carrier/Waybill Number 8070 6824 7018

Matrix

Containers &amp; Preservatives

Sample I.D. No. and Description  
(Containers for each sample may be combined on one line)

Date

Time

Air

Aqueous

Sed.

Soil

Unpres.

H2SO4

HNO3

HCl

NaOH

ZnAc/NaOH

ZnAc/NaOH

ZnAc/NaOH

ZnAc/NaOH

ZnAc/NaOH

ZnAc/NaOH

ZnAc/NaOH

ZnAc/NaOH

ZnAc/NaOH

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ZnAc/NaOH

ZnAc/NaOH

Special Instructions/  
Conditions of Receipt

680-117013 Chain of Custody

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For \_\_\_\_\_ Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☒ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other \_\_\_\_\_

QC Requirements (Specify)

1. Relinquished By

ELLIOTT PERM

Date

9/21/15

Time

1640

1. Received By

LABOR

Date

9/21/15

Time

1640

2. Relinquished By

LABOR

Date

9/22/15

Time

1508

2. Received By

Fedex

Date

9/23/15

Time

0939

3. Relinquished By

LABOR

Date

9/23/15

Time

0939

3. Received By

Kyle Kirkland

Date

9/23/15

Time

0939

Comments

FASTEST POSS. TAT AND FASTEST POSSIBLE LEVEL 4 DATA PKG \*

0.2/0.60C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

**TestAmerica Savannah**  
5102 LaRoche Avenue  
Savannah, GA 31404

Website: [www.testamericainc.com](http://www.testamericainc.com)  
Phone: (912) 354-7858  
Fax: (912) 352-0165

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Feed Ex #  
8070 6824 7007

○ Alternate Laboratory Name/Location

Phone:  
Fax:

[illegible]

4955 Yarrow Street  
Arvada, CO 80002  
Phone (303) 736-0100 Fax (303) 431-7171

\_\_\_\_\_

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

[illegible]

Page 15 of 19

10/14/2015

Age Group	Number of People
1	13
2	12
3	11
4	10
5	9
6	8
7	7
8	6
9	5
10	4
11	3
12	2
13	1

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

Page 16 of 19



## Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 680-117013-2

Login Number: 117013

List Source: TestAmerica Savannah

List Number: 1

Creator: Daughtry, Beth A

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	Did not receive the water portion for this sample
Samples are received within Holding Time.	False	Waters: cr-6/NO3 OFH
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 680-117013-2

**Login Number: 117013**

**List Number: 4**

**Creator: Hytrek, Cheryl**

**List Source: TestAmerica Sacramento**

**List Creation: 09/24/15 03:14 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Certification Summary

Client: Weston Solutions, Inc.  
Project/Site: Gold King Mine - Region 8

TestAmerica Job ID: 680-117013-2

## Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Colorado	State Program	8	N/A	12-31-15

## Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-16
Alaska (UST)	State Program	10	UST-055	12-18-15
Arizona	State Program	9	AZ0708	08-11-16
Arkansas DEQ	State Program	6	88-0691	06-17-16
California	State Program	9	2897	01-31-16
Colorado	State Program	8	N/A	08-31-16
Connecticut	State Program	1	PH-0691	06-30-17
Florida	NELAP	4	E87570	06-30-16
Hawaii	State Program	9	N/A	01-29-16
Illinois	NELAP	5	200060	03-17-16
Kansas	NELAP	7	E-10375	10-31-15
Louisiana	NELAP	6	30612	06-30-16
Michigan	State Program	5	9947	01-31-16
Nevada	State Program	9	CA44	07-31-16
New Jersey	NELAP	2	CA005	09-30-15 *
New York	NELAP	2	11666	04-01-16
Oregon	NELAP	10	CA200005	01-29-16
Pennsylvania	NELAP	3	9947	03-31-16
Texas	NELAP	6	T104704399-15-9	05-31-16
US Fish & Wildlife	Federal		LE148388-0	02-28-16
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	QUAN1	02-28-16
Virginia	NELAP Secondary AB	3	460278	03-14-16
Washington	State Program	10	C581	05-04-16
West Virginia (DW)	State Program	3	9930C	12-31-15
Wyoming	State Program	8	8TMS-Q	01-29-16

\* Certification renewal pending - certification considered valid.

TestAmerica Savannah